from the average HR for the overall SA population (74 bpm) could reduce SUS direct cost by over R$450 million. **CONCLUSIONS:** These results show that effective lowering heart rate strategies may contribute to substantial savings of public funds in Brazil. Therefore, heart rate must be regarded as an important CV risk factor from an economic point of view.

PCV11

COST-EFFECTIVENESS OF RIVAROXABAN VERSUS ENOXAPARIN FOR THROMBOPROPHYLAXIS AFTER TOTAL HIP REPLACEMENT OR TOTAL KNEE REPLACEMENT IN COLOMBIA

Pereira R[1], Duran A[2], Lindner L[1], Toro W[3], Arango CH[4]
[1]IMS Health, Barcelona, Spain, [2]IMS Health, London, UK, [3]Bayer Schering Pharma, Bogotá, Colombia, [4]Synergia Consultoría y Gestión S.A, Bogotá D.C, Colombia

OBJECTIVES: To assess the cost effectiveness of rivaroxaban against enoxaparin for the prevention of venous thromboembolism (VTE) in patients undergoing total hip replacement (THR) or total knee replacement (TKR) in a Colombian setting. **METHODS:** A cost-effectiveness model was developed to assess the cost effectiveness of rivaroxaban compared to enoxaparin in a Colombian setting over a 5-years time horizon. The model was divided into three modules: prophylaxis, post-prophylaxis, and long-term complications. The first two modules constitute the acute phase and were represented in a decision tree while the long-term complications module was developed as a Markov process. Efficacy and safety parameters used in the prophylaxis module were derived from the RECORD trials in the prevention of VTE following THR or TKR. Published epidemiological and clinical data were used to estimate the risk of VTE and other long term complications beyond the trial period. The analysis was performed from a health care payer's perspective. Cost data was based on clinical guidelines, product labels, nationally and locally published sources, and expert opinion. VTE related utilities reported in literature were used in this analysis. One-way and probabilistic sensitivity analyses were performed in order to address uncertainty around the model inputs. **RESULTS:** Rivaroxaban dominated enoxaparin, yielding improved health outcomes (QALYs) and savings of COP 114,345 per patient in THR. Savings were driven mainly by reduced outpatient administration costs. Rivaroxaban also dominated enoxaparin with savings of 152,484 COP in TKR patients. Probabilistic sensitivity analyses showed dominance in 89% of cases in THR and in 99% in TKR. **CONCLUSIONS:** Rivaroxaban is a cost-effective alternative to enoxaparin for the prevention of VTE following THR or TKR in Colombia.

PCV12

COST-EFFECTIVENESS ANALYSIS OF DABIGATRAN ETEXILATE VERSUS ENOXAPARIN FOR THE PREVENTION OF VENOUS THROMBOEMBOLISM AFTER TOTAL HIP REPLACEMENT UNDER THE BRAZILIAN PUBLIC HEALTH CARE SYSTEM PERSPECTIVE

Fernandes RA, Quintella FF, Teich VD
MedInsight Consulting, Rio de Janeiro, Brazil

OBJECTIVES: To develop a cost-effectiveness analysis of dabigatran etexilate versus enoxaparin for the prevention of venous thromboembolism after total hip replacement under the Brazilian public health care system perspective. **METHODS:** A decision tree analysis was developed for the first 180 days, considering the occurrence of deep vein thrombosis (DVT), pulmonary embolism (PE) and all-cause mortality, followed by two Markov models, for post-thrombotic syndrome and thromboembolic pulmonary hypertension. Long term costs and outcomes associated with the prevention of venous thromboembolism in patients receiving dabigatran or enoxaparin were, therefore, projected. The cycle duration was 1 month and the corresponding transition probabilities were obtained from the RE-NOVATE study. The outcomes were expressed as the incremental number of all thromboembolic events and deaths related to the surgical procedure and its acute and late complications. The analysis considered only direct medical costs. Unit costs for drugs and procedures were obtained from Kairos Magazine (ex-factory price) and the National Database of Ambulatory Costs (SIA/DATASUS), respectively. Costs and outcomes were discounted at an annual 5% discount rate. A budget impact analysis was developed, considering the estimated number of total hip arthroplasties in the Brazilian public health care system in 2009. Main parameters were evaluated in a sensitivity analysis. **RESULTS:** After a literature review, the evidences showed similar effectiveness between both treatments. Total costs associated with dabigatran and enoxaparin were BRL667 (US$476) and BRL1,097 (US$784), respectively. The prophylaxis cost reduction was BRL430 (US$307), in favor of dabigatran. In 2009, total annual costs estimated for dabigatran and enoxaparin were BRL7,425,815 (US$5,304,154) and BRL12,222,284 (US$8,730,203), respectively, with a negative budget impact of BRL4,796,469. (2005 purchasing power parity index 1USD = 1.4BRL) **CONCLUSIONS:** Dabigatran showed to be as effective as enoxaparin and cost-saving for the prevention of venous thromboembolism after total hip replacement under the Brazilian public health care system perspective.

PCV13

COST-EFFECTIVENESS ANALYSIS OF B-TYPE NATRIURETIC PEPTIDE COMPARED TO CLINICAL JUDGMENT IN PATIENTS PRESENTING TO ACUTE CARE SETTINGS WITH DYSPNEA IN UNIFIED HEALTH SYSTEM

Araujo D[1], Souza CPR[2]
[1]State University of Rio de Janeiro, Rio de Janeiro, Brazil, [2]MedInsight, Rio de Janeiro, Brazil

OBJECTIVES: This study was designed to evaluate the cost-effectiveness of diagnostic assessment guided to B-Type Natriuretic Peptide compared with clinical judgment alone, in acute dyspnea, in the Unified Health System Scenario. **METHODS:** A Decision Analytic Model was developed to evaluate the cost-effectiveness of diagnostic assessment guided to B-Type Natriuretic Peptide compared with clinical judgment alone. We used effectiveness data described in a randomized, controlled clinical trial and data from ambulatory and hospital treatment costs coming from Brazilian studies on costs of Heart Failure. The effectiveness units were "hospital admissions avoided" and "echocardiography avoided", at 60 days. The decision tree and statistical analyses were performed by the software TreeAge Pro Healthcare. **RESULTS:** The use of B-Type Natriuretic Peptide in the diagnostic assessment of patients with acute dyspnea showed a reduction of echocardiography (-58.2%) and hospital admissions (-12.6%), when compared to the clinical judgment alone. The average cost per patient of B-Type Natriuretic Peptide group was BRL 652 (US$465) versus BRL 659 (US$470) of clinical group (2005 purchasing power parity index 1 USD = 1.4 BRL*). **CONCLUSIONS:** We concluded that use of B-Type Natriuretic Peptide can be cost saving strategy, in the diagnostic assessment of patients presenting to acute care settings with dyspnea, in Unified Health System.

PCV14

COST-EFFECTIVENESS OF PHARMACOLOGIC HYPERTENSION THERAPY: ECONOMIC ANALYSIS OF ARBS IN COLOMBIA

Castro D[1], Silva C[2], Bohorquez-Nassar C[1], Gomez JC[1]
[1]Sanofi-aventis, Bogota, Cundinamarca, Colombia, [2]Hospital Meissen, Bogota, Cundinamarca, Colombia

OBJECTIVES: Clinical evidence has demonstrated that considerable differences exist among various ARBs in terms of safety and efficacy. These differences can lead to diverse economic outcomes depending on the chosen intervention. This analysis was aimed to assess the cost-effectiveness of ARBs available in the Colombian market. **METHODS:** We performed a cost-effectiveness ratio analysis of ARBs in Colombia. A systematic review was performed on available evidence. Head-to-head studies comparing Irbesartan with other ARBs were included and costs were evaluated based on a Colombian pricelist publication. Cost-effectiveness ratio was finally calculated with the efficacy of interventions (systolic and diastolic mmHg reduction) in the analyzed trials. A sensitivity analysis was performed. **RESULTS:** Based on Mancia et al. [BloodPressMonit 2002;7: 135–42] and drug cost in the Colombian market, cost-effectiveness for Irbesartan 150 mg was U$10.42 per mmHg reduced in systolic blood pressure (SBP) and US$18 for diastolic blood pressure (DBP) compared with US$18.53 in DBP and US$28.72 for SBP with Valsartan (80 mg). According to Bobrie et al. [AmJHypertens 2005;18:1482–8] the cost effectiveness ratio for Irbesartan/Hydrochlorothiazide was US$8.97 (SBP) and US$12.28 (DBP) per mmHg reduced compared with US$12.72 (SBP) and US$18.22 (DBP) for Valsartan/Hydrochlorothiazide. The results based on Oparil et al. [JClinH 2001;3:283–318] were US$13.26 (SBP) U$17.81 (DBP) for Irbesartan 150 mg compared with U$19.09 (SBP) US$28.27 (DBP) for Losartan 50 mg. Results from analysis performed with Kassler-Taub [AJH 1998;11:445–53] were US$820 (SBP) and U$11.50 (DBP) for Irbesartan 300 mg compared with US$13.41 (SBP) and $17.41 (DBP) for Losartan 100 mg. Finally, based on the Negro et al. [JEndocrinolInvest. 2006;29:957–61] the results were $23.02 (SBP) and US$30.42 (DBP) compared with US$27.95 (SBP) US$32.67 (DBP) for Telmisartan 80 mg. **CONCLUSIONS:** This analysis shows that ARBs have different economic outcomes regarding hypertension treatment. Irbesartan shows a good cost-effectiveness ratio compared with other ARBs in the Colombian context.

PCV15

COST-EFFECTIVENESS ANALYSIS OF DABIGATRAN ETEXILATE VERSUS ENOXAPARIN FOR THE PREVENTION OF VENOUS THROMBOEMBOLISM AFTER TOTAL KNEE REPLACEMENT UNDER THE BRAZILIAN PUBLIC HEALTH CARE SYSTEM PERSPECTIVE

Fernandes RA, Quintella FF, Teich VD
MedInsight Consulting, Rio de Janeiro, Brazil

OBJECTIVES: To develop a cost-effectiveness analysis of dabigatran etexilate versus enoxaparin for the prevention of venous thromboembolism after total knee replacement, under the Brazilian public health care system perspective. **METHODS:** A decision tree analysis was developed for the first 180 days, considering the occurrence of deep vein thrombosis (DVT), pulmonary embolism (PE) and all-cause mortality, followed by two Markov models, for post-thrombotic syndrome and thromboembolic pulmonary hypertension. Long term costs and outcomes associated with the prevention of venous thromboembolism in patients receiving dabigatran or enoxaparin were, therefore, projected. The cycle duration was 1 month and the corresponding transition probabilities were obtained from the RE-MODEL study. The outcomes were expressed as the incremental number of all thromboembolic events and deaths related to the surgical procedure and its acute and late complications. The analysis considered only direct medical costs. Unit costs for drugs and procedures were obtained from Kairos Magazine (ex-factory price) and the National Database of Ambulatory Costs (SIA/DATASUS), respectively. Costs and outcomes were discounted at an annual 5% discount rate. A budget impact analysis was developed, considering the estimated number of total knee arthroplasties in the Brazilian public health care system in 2009. Main parameters were evaluated in a sensitivity analysis. **RESULTS:** After a literature review, the evidences showed similar effectiveness between both alternatives. Total costs associated with dabigatran and enoxaparin were BRL279 (US$199) and BRL451 (US$322), respectively. The prophylaxis cost reduction was BRL172 (US$123), in favor of dabigatran. In 2009, total annual costs estimated for dabigatran and enoxaparin were BRL1,113,412 (US$795,294) and BRL1,800,886 (US$1,286,347), respectively, with a negative budget impact of BRL687,474 (US$491,053). (2005 purchasing power parity index 1USD = 1.4BRL) **CONCLUSIONS:** Dabigatran showed to be as